



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AMD4AERNG-P43-8TW-A-POE 4000K NURSE ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18940.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 25-AUG-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' MULTI COMPARTMENT LED TROFFER
 [MORE] CLEAR ACRYLIC LENS
 [LUMCAT] AMD4AERNG-P43-8TW-A-PoE 4000k NURSE ONLY
 [_SEARCH_SOURCE] LED
 [_SEARCH_APPLICATION] INDOOR, DIRECT, MEDICAL
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 204 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 23 |
| Total Luminaire Watts | 9 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.02 |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | 0.02 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.92 ft |
| Luminous Width (90-270) | 1.92 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 0 | 85 | 207 |
| 55 | 0 | 195 | 395 |
| 65 | 0 | 386 | 305 |
| 75 | 0 | 111 | 11 |
| 85 | 0 | 0 | 0 |

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CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> |
|----|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 15 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 20 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 |
| 25 | 0 | 0 | 2 | 8 | 18 | 8 | 2 | 0 | 0 |
| 30 | 2 | 2 | 14 | 32 | 36 | 32 | 14 | 2 | 2 |
| 35 | 2 | 2 | 20 | 48 | 56 | 48 | 20 | 2 | 2 |
| 40 | 0 | 2 | 24 | 62 | 72 | 62 | 24 | 0 | 0 |
| 45 | 0 | 6 | 42 | 84 | 102 | 84 | 32 | 6 | 0 |
| 50 | 0 | 14 | 62 | 116 | 138 | 116 | 62 | 14 | 0 |
| 55 | 0 | 14 | 78 | 144 | 158 | 138 | 72 | 14 | 0 |
| 60 | 0 | 24 | 104 | 152 | 152 | 144 | 90 | 18 | 0 |
| 65 | 0 | 30 | 114 | 104 | 90 | 98 | 90 | 18 | 0 |
| 70 | 0 | 32 | 72 | 42 | 30 | 32 | 60 | 20 | 0 |
| 75 | 0 | 32 | 20 | 2 | 2 | 2 | 14 | 20 | 0 |
| 80 | 0 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : AMD4AERNG-P43-8TW-A-POE 4000K NURSE ONLY_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|-------|--------|
| 0-20 | 0.54 | N.A. | 0.30 |
| 0-30 | 3.83 | N.A. | 1.90 |
| 0-40 | 19.20 | N.A. | 9.40 |
| 0-60 | 123.92 | N.A. | 60.60 |
| 0-80 | 203.73 | N.A. | 99.70 |
| 0-90 | 204.41 | N.A. | 100.00 |
| 10-90 | 204.34 | N.A. | 100.00 |
| 20-40 | 18.67 | N.A. | 9.10 |
| 20-50 | 54.78 | N.A. | 26.80 |
| 40-70 | 168.36 | N.A. | 82.40 |
| 60-80 | 79.81 | N.A. | 39.00 |
| 70-80 | 16.16 | N.A. | 7.90 |
| 80-90 | 0.68 | N.A. | 0.30 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 204.41 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 0.07 |
| 10-20 | 0.46 |
| 20-30 | 3.30 |
| 30-40 | 15.37 |
| 40-50 | 36.11 |
| 50-60 | 68.60 |
| 60-70 | 63.65 |
| 70-80 | 16.16 |
| 80-90 | 0.68 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 225 | 225 | 225 | 225 | 220 | 220 | 220 | 220 | 210 | 210 | 210 | 201 | 201 | 201 | 193 | 193 | 193 | 189 |
| 1 | 201 | 190 | 180 | 171 | 196 | 186 | 177 | 168 | 177 | 170 | 163 | 170 | 164 | 158 | 163 | 158 | 153 | 149 |
| 2 | 176 | 156 | 140 | 126 | 171 | 152 | 137 | 124 | 145 | 132 | 121 | 139 | 128 | 118 | 133 | 124 | 116 | 111 |
| 3 | 154 | 129 | 109 | 93 | 149 | 125 | 107 | 92 | 119 | 103 | 90 | 114 | 100 | 88 | 108 | 97 | 87 | 82 |
| 4 | 136 | 107 | 86 | 70 | 131 | 104 | 84 | 69 | 99 | 82 | 68 | 94 | 79 | 67 | 90 | 76 | 66 | 61 |
| 5 | 121 | 90 | 69 | 53 | 116 | 88 | 68 | 53 | 83 | 65 | 52 | 79 | 63 | 51 | 75 | 61 | 50 | 45 |
| 6 | 109 | 77 | 56 | 41 | 104 | 75 | 55 | 41 | 71 | 53 | 40 | 68 | 52 | 39 | 64 | 50 | 39 | 34 |
| 7 | 98 | 67 | 46 | 32 | 94 | 65 | 46 | 32 | 62 | 44 | 32 | 59 | 43 | 31 | 56 | 42 | 31 | 26 |
| 8 | 90 | 59 | 39 | 26 | 86 | 57 | 38 | 26 | 54 | 37 | 25 | 52 | 36 | 25 | 49 | 35 | 25 | 20 |
| 9 | 82 | 52 | 33 | 21 | 79 | 51 | 33 | 21 | 48 | 32 | 21 | 46 | 31 | 20 | 44 | 30 | 20 | 16 |
| 10 | 76 | 47 | 29 | 17 | 73 | 46 | 29 | 17 | 43 | 28 | 17 | 41 | 27 | 17 | 40 | 26 | 17 | 13 |

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UGR TABLE - CORRECTED

Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

Room Size UGR Viewed Crosswise

| X=2H | Y=2H | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | UGR Viewed Endwise | | | | |
|------|------|-----|-----|-----|-----|-----|--------------------|------|------|------|------|
| | 3H | 0.0 | 1.4 | 0.0 | 1.7 | 2.1 | 11.3 | 13.4 | 11.7 | 13.7 | 14.0 |
| | 4H | 0.7 | 2.5 | 1.1 | 2.8 | 3.2 | 12.0 | 13.9 | 12.4 | 14.2 | 14.5 |
| | 6H | 0.9 | 2.6 | 1.3 | 2.9 | 3.3 | 12.0 | 13.7 | 12.4 | 14.1 | 14.4 |
| | 8H | 0.9 | 2.5 | 1.3 | 2.9 | 3.3 | 11.9 | 13.6 | 12.4 | 14.0 | 14.3 |
| | 12H | 0.9 | 2.4 | 1.3 | 2.8 | 3.2 | 11.9 | 13.5 | 12.3 | 13.9 | 14.3 |

| | | | | | | | | | | | |
|----|-----|-----|------|-----|------|------|------|------|------|------|------|
| 4H | 2H | 7.0 | 8.7 | 7.4 | 9.1 | 9.5 | 11.9 | 13.4 | 12.3 | 14.1 | 14.4 |
| | 3H | 8.1 | 9.6 | 8.5 | 10.0 | 10.4 | 11.9 | 13.7 | 12.3 | 14.1 | 14.4 |
| | 4H | 8.8 | 10.1 | 9.2 | 10.5 | 10.9 | 12.7 | 14.2 | 13.1 | 14.6 | 15.0 |
| | 6H | 8.9 | 10.1 | 9.3 | 10.5 | 11.0 | 12.7 | 14.0 | 13.1 | 14.4 | 14.9 |
| | 8H | 8.9 | 10.1 | 9.3 | 10.5 | 11.0 | 12.7 | 13.9 | 13.1 | 14.3 | 14.7 |
| | 12H | 8.9 | 10.0 | 9.4 | 10.5 | 10.9 | 12.7 | 13.8 | 13.1 | 14.2 | 14.7 |

| | | | | | | | | | | | |
|----|-----|-----|------|-----|------|------|------|------|------|------|------|
| 8H | 4H | 9.1 | 10.2 | 9.6 | 10.6 | 11.1 | 12.7 | 13.7 | 13.1 | 14.1 | 14.6 |
| | 6H | 9.3 | 10.2 | 9.8 | 10.7 | 11.2 | 12.8 | 13.9 | 13.2 | 14.3 | 14.8 |
| | 8H | 9.3 | 10.1 | 9.8 | 10.6 | 11.1 | 12.7 | 13.7 | 13.2 | 14.1 | 14.6 |
| | 12H | 9.3 | 10.0 | 9.8 | 10.5 | 11.1 | 12.7 | 13.5 | 13.2 | 14.0 | 14.5 |

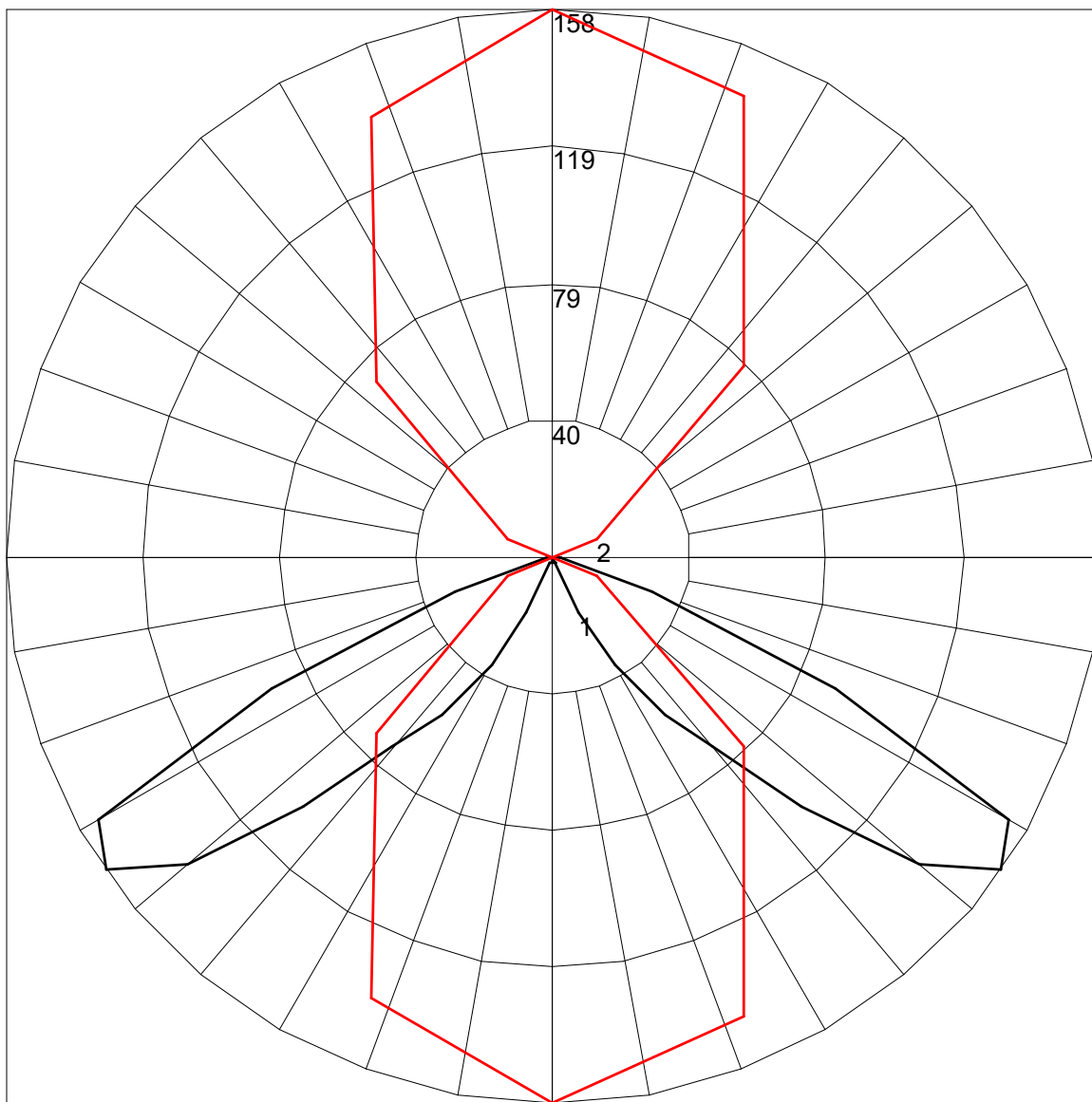
| | | | | | | | | | | | |
|-----|----|-----|------|-----|------|------|------|------|------|------|------|
| 12H | 4H | 9.1 | 10.1 | 9.6 | 10.6 | 11.0 | 12.8 | 13.8 | 13.2 | 14.2 | 14.7 |
| | 6H | 9.3 | 10.1 | 9.8 | 10.6 | 11.1 | 12.8 | 13.6 | 13.3 | 14.0 | 14.6 |
| | 8H | 9.3 | 10.0 | 9.8 | 10.5 | 11.1 | 12.8 | 13.5 | 13.3 | 13.9 | 14.5 |

Maximum UGR = 15.0

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POLAR GRAPH



Maximum Candela = 158 Located At Horizontal Angle = 90, Vertical Angle = 55

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (55) (Through Max. Cd.)